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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH
CENTRAL DIVISION**

JACOB SEAN BARBEN,

Plaintiff,

v.

FEDERAL CARTRIDGE COMPANY, a
Minnesota Corporation.

Defendant.

**MEMORANDUM IN OPPOSITION
TO DEFENDANT'S MOTION TO
EXCLUDE TOM ROSTER**

Case No.: 1:16-cv-00094-BCW

INTRODUCTION

This is a products liability action arising out of a defective shotgun shell designed, manufactured and sold by Defendant Federal Cartridge Company. The plastic hull of the shell separated from its metal head—a known phenomenon called a hull separation, and which does not occur in the absence of a defect—and the plastic hull (and possibly other shell contents) remained in the barrel of the gun and caused an obstruction unknown to Plaintiff Jake Barben. When Jake loaded another shell and fired, the second shell struck the obstruction of the first, defectively separated shell, causing the

force of the shot to explode out the side of the barrel, and resulting in serious injuries to Jake's left hand.

Plaintiff retained Tom Roster as his causation expert. Mr. Roster, who has decades of experience as an expert consulting with many gun and ammunition manufacturers—including Defendant Federal Cartridge Company—opined that the unrefuted facts concerning the sequence of events on the day of the explosion allow for only one explanation for the explosion: a hull separation. Knowing this, Defendant set up this motion during Mr. Roster's deposition by asking Mr. Roster for details concerning precisely how the hull separation occurred, a question that is neither answerable nor necessary in order for Mr. Roster's causation opinion to be admissible.

Mr. Roster's opinions are based on the most fundamental method of investigation: the process of elimination. His opinions are adequately supported and admissible, and Defendant's motion should be denied.

FACTUAL BACKGROUND

Defendant Federal is the designer and manufacturer of 12-gauge shotgun shells for use in 12-gauge shotguns.¹ Shotgun shells consist of a plastic hull and a metal head with a primer. These are attached to each other by a process of crimping the metal to the plastic. The shells contain a powder charge, a wad and shot cup, and bb's. The end of the plastic hull is folded to contain the bb's.² Upon firing, the primer ignites the powder charge, which shoots the wad/cup and bb's out through the folded plastic end of the shell, expelling the bb's out the end of the gun barrel, but leaving the plastic hull and

¹ Deposition of Jacob Barben, 16:8-18. Referenced portions attached hereto as Exhibit 1.

² Deposition of Tom Roster, 90:14-91:18. Referenced portions attached hereto as Exhibit 2.

metal head of the shell intact inside the shotgun.³ As relevant here, a spent shotgun shell is then ejected from the shotgun by “breaking” the gun at a hinge action where the barrels meet the gun receiver, exposing the chamber, and automatically ejecting the spent shell by catching the lip of the metal head and flinging it free of the chamber as the two sides of the gun separate at a hinge.⁴

It has long been known to ammunition manufacturers and experts who consult with them—like Tom Roster—that the plastic hull of a shotgun shell can separate from the metal head during discharge, a phenomenon known as “hull separation.”⁵ Contrary to Defendant’s representation, Mr. Roster is aware of this phenomenon by way of his own experiences, other experts’ experiences, and reports from readers of his many publications.⁶ Hull separation does not occur in the absence of a defect in the shotgun shell.⁷ Said differently, a non-defective shotgun shell does not experience a hull separation.

Plaintiff Jake Barben, an avid and experienced sportsman, joined several coworkers at a teambuilding hunting activity at Bear River Bottoms pheasant hunting club. Jake loaded Federal’s 12-gauge shotgun shells into his double-barrel shotgun, shot one of his two barrels, broke the action, ejected the spent shell, loaded another 12-gauge Federal shell, closed the action, and fired again. This second shot exploded out of the left side of the barrel, seriously injuring Jake’s hand.⁸

³ Affidavit of Tom Roster, ¶ 4. Attached hereto as Exhibit 3.

⁴ Roster depo (Ex. 2), 75:19-76:6, 80:24-81:7; Barben depo (Ex. 1), 54:12-21.

⁵ Roster depo (Ex. 2), 149:10-12; Roster Affidavit (Ex. 3), ¶ 1.

⁶ Roster depo (Ex. 2), 149:10-24, 150:6-19; Roster Affidavit (Ex. 3), ¶ 2.

⁷ Roster depo (Ex. 2), 231:10-12; Roster Affidavit (Ex. 3), ¶ 6.

⁸ Barben depo (Ex. 1), 80:2-4, 81:7-24, 88:11-15, 167:5-14, 91:9-22, 82:2-6, 168:22-25, 80:7-21, 87:14-22.

All of the witnesses present attested to this sequence of events,⁹ which is the material point and the factual basis for Mr. Roster's opinions. If Jake shot, ejected, reloaded, and shot again, then, absent a barrel defect, which is not supported by any of the evidence, including Defendant's metallurgical and other testing, no other possible explanation can exist for the explosion other than a hull separation.¹⁰

Mr. Roster examined the gun and the ammunition used that day, as well as physical evidence found at the scene of the explosion. This evidence included a Federal 12-gauge shotgun shell plastic hull that was not only separated from its metal head (the head was nowhere to be found), but also showed indicia of having been smashed in a confined space like a shotgun barrel, and struck by numerous bb's of precisely the same size and shape as those found in Federal 12-gauge shotgun shells.¹¹ This physical evidence provided added support to Mr. Roster's opinion that the explosion was caused by a hull separation of the first shotgun shell Jake fired, which left the plastic hull lodged in the barrel of Jake's gun, and which in turn was struck by Jake's second shot, sending the force of the shot out the side of the barrel, and causing the condition of and markings on the recovered hull found at the scene.¹² Defendant's expert ignored this evidence on the premise that he was not satisfied with the method by which it was collected.

Mr. Roster has extensive experience in ballistics research and testing, and in forensic analysis of shotgun incidents. He has helped ammunition companies design

⁹ See, e.g., Affidavit of Brian Smith, ¶¶ 2-13. Attached hereto as Exhibit 4. Affidavit of Mark Braddy, ¶¶ 2-13. Attached hereto as Exhibit 6. Affidavits of the others present are forthcoming.

¹⁰ Roster Expert Report, 10-11. Attached hereto as Exhibit 5.

¹¹ *Id.* at 1, 10-12.

¹² Roster depo (Ex. 2), 88:11-89:9, 102:2-11, 160:3-161:19, 245:19-246:6.

shotgun shells.¹³ He has consulted with companies concerning shotgun barrel obstruction bursts—precisely the phenomenon at issue here.¹⁴ He has consulted with Defendant Federal on such tasks as improving their shot shell line,¹⁵ developing buffered lead loads,¹⁶ developing steel shot shell loads,¹⁷ and testing of ammunition.¹⁸

Defendant spent days having multiple experts inspect the gun and ammunition, and the only theory Defendant has posited is that Jake accidentally loaded a smaller 20-gauge shotgun shell into his gun at some point, which became lodged in the barrel, and then shot a 12-gauge shell into the 20-gauge shell. In order for that explanation to be possible, two facts would have had to have occurred that are directly contrary to all the evidence: First, Jake would have had to have had a 20-gauge shell with him that day, even though no one was shooting 20-gauge guns, neither Jake nor any of his companions owned a 20-gauge gun, and no one had purchased 20-gauge shells;¹⁹ and second, Jake would have had to have loaded a proper 12-gauge shell, fired that shell, broke the action, loaded an improper 20-gauge shell, attempted to fire but felt only a click of the trigger instead of a shotgun shot, not realized there was a problem even though he was an experienced sportsman and paid careful attention to the feel of his guns, broke the action a *second* time, loaded a proper 12-gauge shell behind the 20-gauge shell already in the chamber, and fired the shot that struck the 20-gauge shell and

¹³ *Id.* at 16:23-17:3.

¹⁴ *Id.* at 24:9-12.

¹⁵ *Id.* at 29:7-9.

¹⁶ *Id.* at 29:17-24.

¹⁷ *Id.* at 30:7-10.

¹⁸ *Id.* at 31:1-6.

¹⁹ Roster depo (Ex. 2), 248:1-10.

exploded out the side of the gun.²⁰ All of the witnesses at the scene agree that this sequence of events did not happen.

The facts disallow the creative theory Defendant has developed for this litigation, and instead allow for only one conclusion: a Federal shotgun shell was defective, and its hull separated from its metal head and caused an obstruction, leading to the explosion.

ARGUMENT

I. Standard.

As relevant here, “[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: . . . (c) the testimony is the product of reliable principles and methods . . .”²¹

II. Mr. Roster’s opinions are supported and admissible.

Defendant contends that because Mr. Roster did not “test his theory” in a way Defendant demands, that means Mr. Roster’s opinion concerning how the explosion occurred is unreliable. Defendant misstates both the facts and the law.

First, Defendant misstates the bases of Mr. Roster’s opinion and his methodology, and misrepresents Mr. Roster’s deposition testimony. Mr. Roster’s opinions were not based on either some esoteric methodology known to no one else, or on ipse dixit. They were arrived at by the most universally recognized method of expert inquiry: the process of elimination.²² Mr. Roster considered all possible explanations for the explosion, including Defendant’s theory that a 20-gauge shell was loaded in the

²⁰ *Id.* at 263:23-264:5, 265:12-266:10.

²¹ FED. R. EVID. 702(c).

²² *Werth v. Makita Elec. Works, Ltd.*, 950 F.2d 643, 651 (10th Cir. 1991) (expert opinion eliminating other possible causes to arrive at sole cause should have been permitted because the expert has specialized knowledge that would have been helpful to the jury); *Farmers Ins. Co., Inc. v. Smith*, 549 P.2d 1026, 1032 (Kan. 1976) (where engineer used the process of elimination to arrive at his opinion concerning the cause of a fire, opinion testimony was admissible).

gun. He examined all of the testimonial and physical evidence available, and he concluded, based on the unrefuted and consistent evidence, that all possible explanations for the explosion could be factually eliminated except for a hull separation.²³ Mr. Roster did not conclude that testing was necessary to determine *if* a hull separation occurred, but only to determine *why* the hull separation occurred.²⁴ Mr. Roster is certain (that is, far beyond the requisite standard), that a hull separation is what caused the explosion; what he does not know is precisely what defect caused it because that evidence blew up because of the defect.

That is where Defendant's flawed legal argument enters. Defendant is incorrect in demanding further testing to determine with precision which defect was present, where the facts already identify the cause of the explosion and liability therefore. A hull separation does not happen in the absence of a defect. Whether that defect is one of design or manufacture does not change the end result, or the culpable party. Defendant alone had control of and was responsible for the design and manufacture of the separated shell, and whether the separation was a failure in Defendant's design or in Defendant's manufacture, Defendant is the only responsible party. Identifying a specific

²³ Roster depo (Ex. 2), 88:18-89:9 (through the process of elimination, considering all available evidence, the only thing that could have been the obstruction was the Federal hull), 102:2-11 (Mr. Roster examined the sequence of events and confirmed that there was not shot between the first and second shots, that is, there was no time at which Jake could have loaded a 20-gauge shell), 160:3-161:19 (concluding that the only thing that could have caused the condition of the separated shell found at the scene was a hull separation and the hull being lodged in the barrel of a shotgun and then shot at by a subsequent shot), 245:15-248:10 (the logic of the sequence of events requires that the obstruction was either a separated hull or a 20-gauge round, and the 20-gauge theory can be ruled out by the unrefuted sequence of events, and the lack of any physical evidence of a 20-gauge shell obstruction).

²⁴ Roster depo (Ex. 2), 120:22-17 (explaining that testing would not change his opinion but could give "more understanding of what occurred," but that testing would be difficult because there are so many unknown factors about the specifics of the explosion that it would be impossible to reliably recreate), 193:4-14 ("All I can report is not the cause but the result, which was some—some form of a hull failure event involving a tube separation for sure"); 231:10-12 ("[I]f the hull separated into pieces that there's—that particular hull is defective").

defect is often impossible, particularly where, as here, the product is destroyed or dismembered by its own defect.²⁵ This is why “[t]he inference of a defect is permissible whenever the plaintiff has introduced evidence that would exclude other causes of the accident.”²⁶ “Where any one of several types of defect may have caused the accident, the jury may infer negligence on the part of defendant in issuing a defective product, without pinpointing the specific defect.”²⁷

Mr. Roster’s opinion is based on all of the unrefuted and consistent facts—including facts that Federal and its experts have persistently ignored. Mr. Roster applied those facts to the unremarkable methodology known as the process of elimination, a methodology recognized again and again as reliable in our courts.²⁸ Further testing, had it been possible, may perhaps have revealed interesting additional details about the precise defect or defects in Defendant’s product, but that was not required, and it certainly would have made Defendant no less liable for this explosion.

²⁵ *St. Paul Fire & Marine Ins. Co. v. Michelin Tire Corp.*, 298 N.E. 2d 289, 297 (Ill. Ct. App. 1973) (“In every products liability case there must exist some juncture beyond which a plaintiff need not and perhaps cannot be more specific. It is sufficient if, by expert opinion and/or circumstantial evidence, it appears more probable than not that the product in question contained a defect when it left the manufacturer's control and that the defect was causally connected to the injury.”)

²⁶ *Weir v. Federal Insurance Co.*, 811 F.2d 1387, 1392 (10th Cir. 1987).

²⁷ *Weggeman v. Seven-Up Bottling Co.*, 93 N.W. 2d 467, 474 (Wis. 1958) (“Where *res ipsa* applies, however, the plaintiff is not required to prove or point out a single specific defect out of several that are possible. Where any one of several types of defect may have caused the accident the jury may infer negligence on the part of defendant in issuing a defective product, without pinpointing the specific defect.”). See the application of the *res ipsa loquitur* principle in Utah products liability cases in *King v. Searle Pharmaceuticals*, 832 P.2d 858, 861 (Utah 1992) (addressing with approval the use of *res ipsa loquitur* in the products liability context, but finding it inapplicable where the plaintiff could not prove exclusive control).

²⁸ See *Hickerson v. Pride Mobility Products Corp.*, 470 F.3d 1252, 1257 (8th Cir. 2006) (admitting expert’s *res ipsa*-type opinion arrived at by the process of elimination that a defect in a power wheelchair was the only possible cause of a fire that burned down Plaintiff’s house and killed Plaintiff’s wife, where expert was not being offered as an engineering or product design expert, but as a fire cause and origin expert).

CONCLUSION

Where Defendant has recognized Tom Roster's expertise and the reliability of his methods in consulting for Defendant, Defendant cannot credibly claim that Mr. Roster's use of that same expertise and the most basic and understandable methodology renders his opinions inadmissible. Defendant's motion should be denied.

Dated this 24th day of October, 2017.

LANCE ANDREW, P.C.

/s/ Jessica Andrew.

CERTIFICATE OF SERVICE

I hereby certify that on this 24th day of October, 2017, I caused a true and correct copy of the foregoing to be filed via ECF, which sent notice of the same to the following:

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